

REMARKS

Claims 1-4 are pending in the present application. Claims 1, 3 and 4 are rejected. Claims 3 and 4 are herein amended.

Applicant's Response to Claim Rejections under 35 U.S.C. §112

Claims 3 and 4 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

Claims 3 and 4 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.

The Office Action argues that claims 3 and 4 do not sufficiently recite the switching valve. The Office Action recognizes that claim 3 does recite a switching valve, but argues that it is not positively claimed as an element of the invention. Claim 4 does not recite a switching valve. The Office Action argues that the switching valve is essential to the novelty of the device and therefore must be recited.

The Office Action argues that claim 3 should recite “a plurality of nozzles” in all parts of the claim in order to be consistent. Furthermore, the Office Action argues that it is unclear how the suction pump, buffer tank, liquid conveying means, and manifold are structurally related. The Office Action states that the device of claim 3 and 4 are inoperable as claimed.

The “plurality of nozzles” to which the Office Action refers is actually recited in claim 4, not claim 3. Therefore, in response, Applicants herein amend claim 4 to recite a plurality of nozzles as required by the Examiner.

Applicants also amend claim 3 in order to positively recite a switching valve, and to more clearly recite the structural relationship between the suction pump, buffer tank, liquid conveying means and manifold.

With regard to claim 4, Applicants herein make some of the Examiner’s proposed amendments in order to overcome this rejection. However, since the specification supports a system in which a buffer tank is optional (see page 5, line 24 to page 6, line 2), Applicants do not at this time add the limitation of a buffer tank to claim 4. Instead, Applicants amend the claims to recite a switching valve connected to the manifold, liquid conveying means and suction pump.

Applicants’ Response to Claim Rejections under 35 U.S.C. §103

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tyberg et al. (U.S. Patent No. 6,270,726) in view of Beinert (WO 00/08474) or in the alternative, Shalon et al. (U.S. Patent No. 6,309,891).

The Office Action argues that **Tyberg** discloses a system as claimed with the exception of disclosing a guide located beneath the urging means. The Office Action relies on either **Beinert** or **Shalon** to provide this teaching.

Tyberg discloses a pipetting station having a pipetting arm 32 capable of raising or lowering along a post (unnumbered). Pipetting arm 32 holds pipetting probe 34 of which

pipetting tip 36 is a part. **Tyberg** also includes a sensor 40 and a spring mechanism 38. The Office Action argues that pipetting probe 34 is analogous to the suction nozzle of the present invention and that the spring mechanism 38 is analogous to the urging means of claim 1.

Shalon discloses a capillary printing system having vertical actuators 22. Vertical actuators 22 have a spring 31, a shaft 32 and a vent 33. The tip of this vertical actuator 22 comes into contact with printing device 11, which prints on registration plate 23. See Figures 2 and 3. The Office Action argues that printing device 11 is analogous to the guide recited in claim 1.

Applicants respectfully argue that the combination of **Tyberg** and **Shalon** does not establish prima facie obviousness. The Office Action argues that printing device 11 is a guide located beneath the urging means. However, if the printing device 11 located within block 12 of **Shalon** were added to **Tyberg**, the resulting device would not read on claim 1. As is evident from claim 1, printing device 11 is a tapering channel which allows substances to pass from vertical actuators 22 to registration plate 23. Vertical actuators 22 come into contact with, but do not pass through, printing device 11. Fluid or substances pass through the tapered channel of the printing device 11. If the printing device 11 of **Shalon** were added to **Tyberg**, the pipetting tip 36 would contact the printing device, not the vessel. Claim 1 recites that the suction nozzle comes “in contact with a lowest position of the inner wall surface of the vessel.” Therefore, the combination of **Tyberg** and **Shalon** do not provide prima facie obviousness with regard to claim 1. Applicants respectfully traverse this rejection.

With regard to **Beinert**, Applicants respectfully argue that the reference does not disclose “a guide, located beneath the urging means, for slidably supporting the suction nozzle.” **Beinert**

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discloses a metering device 250 comprising a mounting block 300 and micropipettes 252. The mounting block 300 is comprised of guide block 230 and carrier plate 240. As stated in the Office Action, “[t]he micropipette is moved relative to the carrier between two end portions via the maximal expansion or maximal compression of the cylinder spring.” As illustrated in Figure 4, cylinder spring 258 is located alongside guide block 230.

Therefore, Applicants respectfully argue that the combination of **Tyberg** and **Beinert** does not establish prima facie obviousness. **Tyberg** lacks the teaching of “a guide, located beneath the urging means.” In **Beinert**, the guide block 230 is not located beneath the cylinder spring 258, but rather alongside it. Therefore, the combination of **Tyberg** and **Beinert** would result in a different structural configuration than that of claim 1.

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Schultz et al (U.S. Patent No. 6,033,911) in view of Ade et al. (U.S. Patent No. 5,853,665).

Although the Office Action does not cite the Patent Number of **Schultz**, it is presumed that the Examiner refers to U.S. Patent No. 6,033,911, since this reference was previously cited in the application.

With regard to claim 3, the Office Action argues that **Schultz** discloses the invention as claimed, with the exception of a buffer tank located between the suction pump and the branch manifold. The Office Action relies on **Ade** for this teaching.

Schultz discloses an automated assaying device having a hydraulic solution source 50, a pump 12, controllable cells/syringe housings 32, syringes 52 and probes 26. The Office Action

regards these components as a buffer tank, a liquid conveying means, a manifold, a suction pump, and a probe, respectively. As shown in Figures 1 and 2, these components are arranged in the following order from upstream to downstream: hydraulic solution source 50, pump 12, controllable cell/syringe housings 32, syringes 52 and probes 26. The Office Action correctly identifies **Schultz** as failing to disclose a device wherein a buffer tank is located between a suction pump and a branch manifold, as recited in claim 1.

Ade discloses an apparatus in which fluid is aspirated from blood sample B through needle apertures 18 and 19. The blood is moved as a result of vacuum pressure from vacuum pump 30, and is drawn into testing stage 36. From there the blood is disposed. **Ade** is also provided with a diluent supply (unnumbered) which flows through diluent supply line 40 to clean the lines when necessary. The Office Action's comments on **Abe** are unclear, but it appears that it is argued that the diluent supply is analogous to a buffer tank and that it is located between a pump and a branch manifold.

In response, Applicants respectfully argue that the combination of references does not establish prima facie obviousness with respect to disposing a buffer tank between a suction pump and a branch manifold. **Ade** does not disclose a diluent supply or buffer tank located between a suction pump and branch manifold. In fact, the diluent supply of **Ade** is not between any two components. Rather, it is the terminal end of a line of the device. Furthermore, the Office Action is unclear as to what he regards as a branch manifold. Finally, Applicants argue that the combination of **Schultz** and **Ade** does not teach "a switching valve connected to the buffer tank,

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liquid conveying means, and branch manifold” as recited in amended claim 3. Applicants respectfully traverse the rejection.

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Schultz in view of Tyberg in view of Beinert and in further view of Yu (U.S. Patent No. 5,779,907).

In the rejection of claim 4, the Office Action relies on **Beinert (WO 00/08474)** to teach a guide located beneath the urging means for slidably supporting the plurality of suction nozzles. As discussed above, **Beinert** does not disclose “a guide, located beneath the urging means.” Because **Beinert** does not actually provide this teaching as discussed above, Applicants respectfully argue that this rejection fails.

None of **Schultz, Tyberg** or **Yu** provide a teaching of “a guide located beneath the urging means for slidably supporting the plurality of suction nozzles.” Thus, the Office Action has failed to provide a showing of prima facie obviousness with regard to claim 4. Applicants respectfully traverse the rejection.


For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants’ undersigned agent.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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